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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/718,086	11/19/2003	Reade Clemens	085. 10546A-US (01-465A)	9418
34704 7590 11/12/2009 BACHMAN & LAPOINTE, P.C. 900 CHAPEL STREET SUITE 1201 NEW HAVEN, CT 06510			EXAMINER NGUYEN, PHONG H	
			ART UNIT 3724	PAPER NUMBER
			MAIL DATE 11/12/2009	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/718,086	<b>Applicant(s)</b> CLEMENS, READE	
	<b>Examiner</b> PHONG H. NGUYEN	<b>Art Unit</b> 3724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 December 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Broschke (2,663,185), in view of Batsch et al. (3,781,020), hereinafter Batsch, Kobayashi et al. (5,785,039), hereinafter Kobayashi, Applicant's admitted prior art (the Declaration of Mr. Dilip Shah filed on 02/09/2009), and Ziegel (4,560,853).

Regarding claims 1 and 13, Broschke teaches an indenting tool comprising a shank 10 and a diamond tip 11. See Fig. 5.

Broschke does not teach the diamond tip being mounted to the tip end within 8 degrees of a <17, 12, 24> direction.

According to the Mr. Shah's declaration (see Fig. 1), the <17, 12, 24> direction is inherent in a diamond stone.

Batsch and Kobayashi teach that it is well known to one skilled in the art to find directions in a diamond that has high and low wear resistant properties so that the diamond can be shaped accordingly.

Since the <17, 12, 24> direction is inherent in a diamond, it would have been obvious to one skilled in the art at the time the invention was made to do repeated

experiments as taught by Batsch and Kobayashi to find the claimed <17, 12, 24> direction and shape the diamond tip accordingly so that the diamond tip has a high wear resistant property.

Broschke does not teach how the diamond tip is secured to the shank.

Ziegel teaches a diamond tip being secured to a shank by a braze material.

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to secure the diamond tip of Broschke to its shank by a braze material as taught by Ziegel.

Regarding claim 2, it is well known in the art that the shank 10 is made of steel.

Regarding claims 3 and 4, a head of the shank is best seen Fig. 5.

Regarding claims 5 and 6, Batsch and Kobayashi teach the use of single crystal diamond stone.

Regarding claim 7, Broschke teaches the invention substantially as claimed but is silence on whether the diamond is synthetic or natural. However, choosing a synthetic diamond or a natural diamond to manufacture a diamond tip is not patentably distinct over prior art since it involves cost analysis, the availability of natural diamond and synthetic diamond and market demand.

Regarding claim 8, see Fig. 1.

Regarding claim 9, Broschke teaches the invention substantially as claimed except for the conical point forming a 90 degree angle.

At the time the invention was made, it would have been an obvious matter of design choice to one skilled in the art to provide a 90 degree angle conical point to the

indenter because the Applicant has not disclosed that such particular angle of the conical point provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with the 120 degree angle conical point of Broschke because both conical points can make an indent on a surface.

Therefore, it would have been an obvious matter of design choice to modify the conical point of Broschke by providing a 90 degree angle conical point to the indenter to obtain the invention as specified in claim 9.

Regarding claim 10, a 120 degree included angle conical point is best seen in Fig. 5.

Regarding claim 11, Broschke teaches the invention substantially as claimed except for the diamond being secured to the shank by a brazing method.

Ziegel teaches securing a diamond tip to a shank by using a brazing method to provide a strong bond between the diamond and the shank.

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to secure the diamond tip of Broschke to the shank by using a brazing method as taught by Ziegel to create a strong bond between the diamond and the shank.

Regarding claim 12, see Fig. 5.

Regarding claim 14, Broschke teaches a method capable of making an indenting tool comprising the steps of:

- providing a shank 10 having an end;

- providing a diamond 11;
- positioning the diamond in a wear resistant position; and
- securing the diamond to the end of the shank.

See Fig. 5.

Broschke does not teach the diamond being mounted to the tip end within 8 degrees of a <17, 12, 24> direction.

According to the Mr. Shah's declaration (see Fig. 1), the <17, 12, 24> direction is inherent in a diamond stone.

Batsch and Kobayashi teach that it is well known to one skilled in the art to find directions in a diamond that has high and low wear resistant properties so that the diamond can be shaped accordingly.

Since the <17, 12, 24> direction is inherent in a diamond, it would have been obvious to one skilled in the art at the time the invention was made to do repeated experiments as taught by Batsch and Kobayashi to find the claimed <17, 12, 24> direction and shape the diamond tip accordingly so that the diamond tip has a high wear resistant property.

### ***Response to Arguments***

3. Applicant's arguments filed 06/30/2009 have been fully considered but they are not persuasive.

The Applicant argues that there is no suggestion of all elements in the claims and support for the conclusion of obviousness. This argument is not persuasive. The

Art Unit: 3724

combination of Broschke, Batsch, Kobayashi, Ziegel and AAPA teaches all the claimed elements and the support for the conclusion of obviousness is presented in the rejection.

The Applicant argues that Broschke, Batsch and Kobayashi are non-analogous art. This argument is not persuasive. In response to applicant's argument that Broschke, Batsch, Kobayashi are nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Broschke, Batsch and Kobayashi are pertinent to the particular problem with which the Applicant was concerned which are the indenting tool and shaping a diamond at certain planes to increase the structure strength of the diamond. Broschke teaches a diamond indenting tool and Batsch and Kobayashi teach shaping a diamond at certain planes to increase the structural strength of the diamond.

Applicant's arguments with respect to the brazing material have been considered but are moot in view of the new ground(s) of rejection.

The Applicant argues that Mr. Shah's declaration is not a prior art. This argument is not persuasive. The direction <17, 12, 14> is an intrinsic property of a diamond as discussed in Mr. Shah's declaration. Therefore, it is a prior art. The issue is whether it is obvious to one skilled in the art to find the direction <17, 12, 14>. Batsch and Kobayashi teach that it is well known to one skilled in the art to find directions in a diamond that has high and low wear resistant properties so that the diamond can be shaped accordingly.

Art Unit: 3724

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to do repeated experiments to find the claimed <17, 12, 24> direction.

*Conclusion*

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHONG H. NGUYEN whose telephone number is (571)272-4510. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on 571-272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Phong H Nguyen/  
Examiner, Art Unit 3724  
November 4, 2009